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ABSTRACT

Examining the flow of students between the credit and noncredit programs at the City College of San Francisco (CCSF), in California, this report analyzes the patterns of student enrollment, attendance, persistence, and transition between programs from fall 1984 to fall 1994. Following a brief introduction and a discussion of terminology and trends at CCSF over the 10-year period, the report provides data on unduplicated enrollment, attendance, and full-time equivalent student enrollments in credit and noncredit programs. Next, data are presented on the flow of enrolled noncredit students to credit programs and vice versa, the persistence of enrolled noncredit and credit students into either noncredit or credit programs, the flow of students actually attending noncredit programs to credit programs and vice versa, and the persistence of students attending credit and noncredit programs. Highlighted findings include the following: (1) of the 123,000 students enrolling in at least 1 course during the last 5 years, 23% attended a noncredit program; (2) from 1984 to 1994, there was a 54% increase in the number of students moving from noncredit to credit programs, despite a 22% decline in the number of noncredit students served; and (3) the number of students taking advantage of both noncredit and credit offerings simultaneously increased 20% over the period. (TGI)

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FLOW ANALYSIS
OF
CITY COLLEGE OF SAN FRANCISCO STUDENTS:

CREDIT TO NONCREDIT
NONCREDIT TO CREDIT
SIMULTANEOUS ENROLLMENT

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JC 960 399

Flow Analysis of Students at City College of San Francisco

INTRODUCTION

The purpose of this article is to discuss the flow of students between the credit and noncredit programs at City College of San Francisco (CCSF). Major findings on the movement of students from noncredit to credit, credit to noncredit and simultaneous enrollment in both credit and noncredit programs will be analyzed with respect to the general student population, as well as program specific populations at City College.

The information contained in this study, represents the first major longitudinal examination of the patterns to which students access and flow between the credit and noncredit programs. This data provides important information, not only for internal planning purposes, but as a model of the type of accountability that can be provided regarding the success of noncredit programs.

This data is especially important in light of proposed federal block granting of workforce development funds, and increased competition at the state level for limited dollars directed to public education. This study documents the extent that students access and transition between the credit and noncredit programs, indicating that both programs are critical to the needs of the students and City College, that neither program is isolated from the other, and that both work together to fulfill the mission of City College.

DEFINITIONS AND ASSUMPTIONS

This study encompasses ten years of data, starting with the fall of 1984 semester and ending with the fall 1994 semester. All numbers in this report refer to individual students, not the number of seats or another artificial, calculated numerical unit. All numbers are unduplicated within a program, but duplicated between programs. That is, for programmatic data a student is counted once in each program for each program that that student is enrolled. However, for district data, each student is only counted once.

All data in this report comes from the Integrated Student Information System (ISIS) data files of CCSF.

INSTITUTIONAL HISTORY

This ten year period was a time of intense study of the California Community Colleges. A special commission was

established to review the Master Plan for Higher Education. The resulting report led to further study in the California legislature, resulting in reform legislation. These sweeping reforms changed the financial, governance and staffing structure of the community colleges, as well as reaffirmed the broad nature of the mission of this segment of higher education.

During this time, all credit and noncredit courses were reviewed under new Title V regulations. As a result of this study, many courses at CCSF were converted from noncredit to credit, accounting for some of the increase in the size of the credit program and commensurate decrease in the noncredit program.

In the spring of 1993, this reform period was followed by a nearly threefold increase in the per unit fees to all credit students, and a nearly ninefold increase to students already possessing a baccalaureate degree. This resulted in the loss of nearly half of the students with baccalaureates and an 8% drop of all students between Fall of 1992 and Spring of 1993.

While funding at CCSF remained relatively flat during this 10-year period, CCSF saw dramatic organizational changes. Since its formation as the San Francisco Community College District in 1972, proportion of students attending the noncredit programs had fluctuated modestly with respect to the credit program, based upon changes in student needs. However, after City College's 10-year accreditation self-study in 1988 and the completion of the Title V course review, major credit and noncredit programmatic changes began to occur.

In the fall of 1990, major administrative and organizational reengineering began. This lead to the full functional integration of the credit and noncredit programs into disciplined-based departments across the entire district, for the first time. At this time many courses were reclassified from noncredit to credit, with Licensed Vocational Nursing leading the way in the spring of 1991. Major conversions of courses from noncredit to credit occurred in the fall of 1991, most specifically in the English as a Second Language and the Automotive departments. This integration of credit and noncredit into departments, as well as other departmental redefinitions, continued to occur for the next several semesters.

ENROLLMENT

Table 1 shows the unduplicated enrollment at City College for every fall and spring semester since the fall of 1984. The total enrollment is unduplicated enrollment for each semester at City College of San Francisco. Therefore credit plus noncredit do not add together to make the total because many students enroll in both credit and noncredit, and each student is only counted once.

As can be seen from this chart, total college enrollment peaked in the spring and fall 1991 semesters. This was the beginning of a period of programmatic reorganization at CCSF with courses in the noncredit program just starting to convert to credit. Credit enrollment peaked during the fall 1991 and the spring 1992 semesters, immediately following the completion and implementation of most course conversions from noncredit to credit. As expected, noncredit peaked from the

spring of 1989 to the spring of 1991 before these conversions took place.

Table 1
Unduplicated Enrollment at City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	24128	20376	24370	25787	25217	26417	26868	28076	27780	29097	29973	30673	30376	32248	34609	34970	33280	31283	29927	29672	29031
Noncredit	48338	49674	49367	52806	51236	52085	49734	50054	51312	53993	52432	53580	51337	52031	50213	45572	41941	42595	41218	39481	35210
Total	70955	68587	72261	76911	74915	76801	75026	76635	77555	81524	80695	82545	80023	82434	82593	78678	73193	71964	69179	67334	62674

Table 2 makes it much easier to see the pattern of changes in enrollment over time. It is clear that over the last ten years the number of credit students has increased while the number of noncredit students has decreased. This is expected since there have been substantial conversions of noncredit courses to credit, which would serve to increase the number of credit students. However, overall total college enrollment has declined. This basically is a function three characteristics of the funding structure of California community colleges. First, under program-based funding, districts have a revenue cap rather than an enrollment cap. Second, districts receive a lower rate of reimbursement for FTES earned in noncredit. Therefore, the larger the credit program, the lower the total number of students needed to reach cap. Third, the difference in the nature of how FTES is calculated for credit and noncredit programs significantly impacts the overall enrollment figures. Because credit courses are usually semester long programs, state reimbursement is based on enrollment, known as census. However, noncredit courses are reimbursed on a daily attendance basis, so that students are encouraged to continue enrolling throughout the semester, leading to a larger number of total students served. Therefore, in times of stable funding, conversion of noncredit courses to credit will result in a lowering of the number of students enrolled.

While the 2,000 student drop in credit enrollment between Fall of 1992 to Spring of 1993 is probably due to increased fees, the index shows a 25% drop in enrollment from the high in spring of 1992 to the fall of 1994 in the credit program. Most of this decline is due to reduction in the number of course offerings in every department that has occurred beginning in the spring of 1993.

However, the index clearly shows a trend of increasing credit students regardless of course conversions.

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Table 2
Enrollment Index of City College of San Francisco
Fall 1984 = 100

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	100	84.4	101.0	106.9	104.5	109.5	111.4	116.3	115.1	120.6	124.2	127.1	125.9	133.6	143.4	144.9	137.9	129.6	124.0	123.0	120.3
Noncredit	100	102.8	102.1	109.2	106.0	107.8	102.9	103.6	106.2	111.7	108.5	110.8	106.2	107.6	103.9	94.3	86.8	88.1	85.7	81.7	72.8
Total	100	96.7	101.8	108.4	105.6	108.2	105.7	108.0	109.3	114.9	113.7	116.3	112.8	116.2	116.4	110.9	103.2	101.4	97.5	94.9	88.3

Table 3 shows that like total college enrollment, the total number of students simultaneously enrolling in both the credit and noncredit programs peaked between the spring of 1991 and the fall of 1992. Although this was a period of intense programmatic and administrative flux, the students continued to access the courses they needed.

Table 3
Simultaneous Enrollment in Credit and Noncredit Programs Enrollment at City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Enrollment	1511	1463	1476	1682	1538	1701	1576	1495	1537	1566	1710	1708	1690	1845	2229	1864	2028	1914	1966	1819	1567

Table 4 shows the percent of all students enrolled in City College of San Francisco who take advantage of both the credit and noncredit programmatic offerings simultaneously. This data demonstrates that while the total number of students peaked between the spring of 1991 and the fall of 1992, the actual percentage of students accessing both programs simultaneously has remained consistently higher after conversion and reorganization. In fact, almost one-third more students have taken advantage of the opportunity to enroll in both credit and noncredit programs since they have been organized by disciplines in departments. This suggests that this reorganization has been beneficial to students and the

institution by better meeting the educational needs of credit or noncredit students, and removing the artificial barriers that existed between the two programs before integration of credit and noncredit into discipline based departments.

Table 4
Percent of Total College Enrollment Accounted for by Simultaneous Enrollment

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Percent	2.1%	2.1%	2.0%	2.2%	2.1%	2.2%	2.1%	2.0%	2.0%	1.9%	2.1%	2.1%	2.1%	2.2%	2.7%	2.4%	2.8%	2.7%	2.8%	2.7%	2.5%

ATTENDANCE

The number of students attending City College is basically a function of the number of students enrolling at City College, therefore, as expected total college attendance peaked between the spring of 1990 and the spring of 1992. Credit attendance, like enrollment peaked from fall of 1991 to spring of 1992, as expected after conversion and reorganization. Noncredit attendance, like noncredit enrollment, peaked between spring of 1989 and spring of 1991, before implementation of reorganization by department and conversion of courses from credit to noncredit.

Table 5
Unduplicated Attendance at City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	20506	20876	20748	21653	21490	22490	22135	22641	22569	22986	24233	24673	24715	26033	27952	28454	27500	25704	24870	24816	24022
Noncredit	43839	45935	45259	49046	48978	50220	46432	47170	47821	50901	48570	50132	47358	48537	44844	41895	39561	39940	37432	38012	34253
Total	63280	65667	65006	69554	69340	71407	67434	68767	69321	72814	71606	73581	70861	73262	71332	68982	65573	64238	61042	61499	57145

Table 6 shows how attendance has changed over the last ten years. Credit attendance is up 17% from ten years ago,

while noncredit attendance is down 22% over the same time periods. This leads to an overall drop in the number of students attending City College of San Francisco.

Also of interest is how the proportion of the institution's programs offered in credit and noncredit has changed over time. In 1984 the credit program accounted for 34% of the students enrolled and 32% of those attending. During the next six years, until the fall of 1990, this proportion of enrollment and attendance accounted for by credit students continued to increase until it was 38% and 35% respectively. This represents a 12% increase in the proportion of enrollment that is accounted for by credit or about 2% a year.

However, the change in the proportion accounted for by credit enrollment between the fall of 1990 and the spring of 1992, when conversion occurred, is much more dramatic. In the spring of 1992, 45% of the total college enrollment was accounted for by credit students, an increase of 12% in slightly more than one year.

The proportion of students attending credit programs experienced the same type of dramatic jump between fall 1990 and spring 1992. In the spring of 1992, 39% of the students attending City College were enrolled in credit programs, an increase of 10% in slightly more than one year. For the previous six years, the rate of increase annually was 1.5%. Again most of this dramatic increase is due to the conversion of noncredit programs to credit in areas such as allied health, automotive and ESL.

Table 6
Attendance Index of City College of San Francisco
Fall 1984 = 100

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	100	101.8	101.2	105.6	104.8	109.7	107.9	110.4	110.1	112.1	118.2	120.3	120.5	127.0	136.3	138.8	134.1	125.3	121.3	121.0	117.1
Noncredit	100	104.8	103.2	111.9	111.7	114.6	105.9	107.6	109.1	116.1	110.8	114.4	108.01	107.6	102.3	95.6	90.2	91.1	85.4	86.7	78.1
Total	100	103.8	102.7	109.9	109.6	112.8	106.6	108.7	109.5	115.1	113.2	116.3	112.0	115.8	112.7	109.0	103.6	101.5	96.5	97.2	90.3

Table 7 shows the ratio between the number of students who actually attend City College of San Francisco to the number of students who enroll. As mentioned before, the student enrollment file for the spring of 1985 semester has been truncated and thus the ratios for credit and total enrollment for this particular semester should be ignored. Over time this ratio

has been relatively constant like all enrollment and attendance figures for City College of San Francisco.

About 10% of the students who enroll in the college, drop out or withdraw completely or never attend a noncredit course. This ratio is about double for credit, between 15% to 21%, to that for noncredit, between 3% to 11%. However, while the ratio for credit has decreased slightly, 2% in ten years, for noncredit is has increased, 6% in ten years.

The reasons for these changes can only be surmised. Matriculation for credit students has been the major change during this time period. Since matriculation intervenes in the period between enrollment and attendance, it is possible that this procedure is the cause of the change in this ratio.

During this same time period, a substantial amount of work has been done on noncredit enrollment procedures. The changes have been to both make enrollment procedures easier and to counsel students before they enroll in a course. It is again possible that these changes are responsible for the improvement in the ratio between the number of students who enroll and the number of students who attend.

Since enrollment costs the college and the college is reimbursed for attendance, the causes of these changes in these ratios are important for the institution.

Table 7
Ratio of Attenders to Enrollers at City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	0.85	1.02	0.85	0.84	0.85	0.85	0.82	0.81	0.81	0.79	0.81	0.80	0.81	0.81	0.81	0.81	0.83	0.82	0.83	0.84	0.83
Noncredit	0.91	0.92	0.92	0.93	0.96	0.96	0.93	0.94	0.93	0.94	0.93	0.94	0.92	0.93	0.89	0.92	0.94	0.94	0.91	0.96	0.97
Total	0.89	0.96	0.90	0.90	0.92	0.93	0.90	0.90	0.89	0.89	0.89	0.89	0.88	0.89	0.86	0.88	0.90	0.89	0.88	0.91	0.91

Table 8 shows the number of students who are attending both credit and noncredit programs at the same time. The number of students attending both credit and noncredit programs programs peaks beginning in fall 1991, coinciding with the course conversions and the integration of noncredit and credit into departments by disciplines. Furthermore, this number stays high until the fall of 1994. In this ten year period, while overall the number of students attending City College has

declined by 10%, the number attending credit and noncredit programs simultaneously has increased 6%. If fall semester of 1994 is excluded, the percent increase is 25%, while the overall drop in the number of students attending is 3%.

These statistics indicate that course conversion and integration of noncredit and credit into departments by disciplines have indeed broken down institutional barriers and that students are better accessing both credit and noncredit programs according to their educational needs.

Table 8

Simultaneous Attendance by Students in Credit and Noncredit Programs at City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Attendance	1065	1144	1001	1145	1128	1303	1133	1044	1069	1073	1197	1224	1212	1308	1464	1367	1488	1406	1260	1329	1130

Table 9 shows the percentage of the number of total students who attend both credit and noncredit programs simultaneously. From 1984 until course conversion in 1991 this percentage stayed almost constant at 1.7%. However, after conversion this percentage jumps by one-third to 2.3%.

Once again, it appears that students are increasingly selecting a credit or noncredit program based on their educational needs, rather than being defined or categorized as a credit or noncredit student.

Table 9

Percent of Total College Attendance Accounted for by Simultaneous Attendance in Credit and Noncredit Programs by Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Percent	1.7%	1.7%	1.5%	1.6%	1.6%	1.8%	1.7%	1.5%	1.5%	1.5%	1.7%	1.7%	1.7%	1.8%	2.1%	2.0%	2.3%	2.2%	2.1%	2.2%	2.0%

FULL-TIME STUDENT EQUIVALENT (FTES)

Table 10 shows how funded FTES has been distributed between credit and noncredit programs and over the last ten years. While credit FTES increased 14% between the fall of 1984 and the fall of 1994, noncredit decreased 3% over this same time period. The total college increased 6.5% over this ten year period, or at an average rate of .65% per year.

Once again, the credit program was largest in all of 1992, with FTES peaking at 28% higher than the baseline of fall 1984 and 13% higher than the end of the study period, fall 1994. In 1984, the credit program accounted for 56% of the Colleges total FTES. This percentage peaked in the fall of 1992, after conversion, at 61%, and is currently, fall 1994, at 60% of the total college FTES.

The noncredit program peaked in terms of absolute size during the spring 1991 semester, representing a 25% increase over the baseline level in fall of 1984. Since that peak in 1991, the size of the noncredit program has declined by 22%.

It is important to note that the analysis of FTES is based only on the fall and spring semesters. Funding, however is based on an annual figure and City College of San Francisco has been increasing the size of its summer school offerings in the last few years.

Table 10
Funded FTES of City College of San Francisco

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Credit	8201	8302	7934	8146	8001	8051	8283	8349	8469	8578	8983	9004	9203	9380	10193	10354	10513	8017	9710	9713	9326
Noncredit	6379	6999	7267	7565	7217	7556	7000	7374	7177	7587	7021	7760	7425	7977	6913	7163	6731	7094	6644	6799	6196
Total	14580	15301	15201	15711	15218	15607	15283	15723	15646	16165	16004	16764	16628	17357	17106	17517	17244	15111	16354	16512	15522

FLOW OF STUDENTS

The next several sections will discuss the flow of students: 1) from noncredit programs to credit and noncredit programs, 2) from programs credit to credit and noncredit programs, and 3) from both noncredit and credit programs to either credit or noncredit programs. The difference in patterns between enrolled students versus student attenders will also be explored.

In order to understand the following tables, it is necessary to give some definitions. "Semester 1" refers to number of students who enrolled in a particular program the next semester. "Semester 2" refers to the number of students who enrolled in a particular program two semesters later. And "Total year" refers to the unduplicated total number of students who enrolled in a particular program either the next semester or the second semester, that is to say within one year. For example, in Table 11, the number of students listed under fall 1984 for "Semester 1" (1338) refers to the number of students enrolled in noncredit programs in fall 1984 who also enrolled in credit programs the spring of 1985. The number of students listed under fall 1984 for "Semester 2" (1534) refers to the number of students enrolled in noncredit programs in fall 1984 who also enrolled in credit programs the fall of 1985. And the number of students listed under fall 1984 for "Total year" (2002) refers to the unduplicated number of students enrolled in noncredit programs in fall 1984 who also enrolled in credit programs either or both the spring or the fall semesters of 1985.

It should be noted that in this study by definition, the students who are simultaneously enrolled in both credit and noncredit are counted both in the credit and noncredit numbers.

FLOW OF ENROLLED NONCREDIT STUDENTS

The number of noncredit students who enrolled in the credit program the following semester increased steadily from fall of 1984 until peaking in the spring of 1991 at 3189, representing an increase of 138%. After this semester there was a decline in the number of noncredit students flowing from noncredit to credit for two reasons. First, the total number of noncredit students decreased after that semester (Tables 5 and 6), so the pool upon which to draw upon decreased. Second, with the conversion of noncredit courses to credit the following semester, many students no longer have to first enroll in noncredit programs to meet their educational needs. Therefore, at the end of ten years, the total number of students flowing from noncredit to credit each semester only increased by 54%, still a substantial and important increase by any measure. Furthermore, by holding the size of the enrollment constant, the rate of flow of noncredit students by the next semester

doubles from 2.8% of the noncredit population to 5.2% of the noncredit population between 1984 and 1994, and nearly triples in the spring of 1991.

The number of noncredit students who enrolled in the credit program the following year also peaked in the spring of 1991. The 3256 students who were enrolled in credit programs the spring of 1992 represent a 112% increase over the number of fall 1984 students (1535) who enrolled in credit programs the fall of 1985. For the reasons stated above by spring 1994 (the last semester for which annual data is available), the increase in this number over fall 1984 was 37%, an average annual growth rate of nearly 4% . However, holding enrollment constant there is in fact a two-thirds increase between 1984 and 1994 in the number of students who enroll in credit programs one year after enrolling in noncredit, providing for an average annual growth rate of almost 7%.

Looking at all the noncredit students who enrolled in credit programs anytime within one year, the absolute number again peaks in spring of 1991 as would be expected at 4175, representing an increase of 109% over fall of 1984. Holding enrollment constant this number has increased again by nearly two-thirds in ten years.

Table 11
Enrolled Students Flow from Noncredit to Credit

	E'84	S'85	E'85	S'86	E'86	S'87	E'87	S'88	E'88	S'89	E'89	S'90	E'90	S'91	E'91	S'92	E'92	S'93	E'93	S'94	E'94
semester 1	1338	1797	1837	1998	1955	2080	1892	1934	1915	2113	2081	2180	2200	3189	2601	2644	2163	2302	2118	2055	1724
semester 2	1535	2038	2005	2228	2097	2312	2114	2103	2297	2317	2303	2487	3248	3256	3048	2662	2429	2380	2252	2099	n/a
Total year	2002	2565	2741	2848	2939	2942	2853	2694	3001	3005	3064	3109	3994	4175	3922	3431	3167	3028	2982	2657	n/a

Table 12 shows the percent of noncredit students who enroll in credit programs in one or both of the following two semesters. Once again, spring 1991 is the peak with 8% of noncredit students enrolling in credit programs within the next year. While this number may seem low, it compares favorably with the 10% of the noncredit students who declare attaining either a baccalaureate or an associate degree to be their goal (SIQ, 1993).

However, to fully understand the importance and substance of this 8% it is necessary to understand the nature of City College of San Francisco. First, City College of San Francisco is a two-year institution, therefore, in the most ideal of conditions only one-fourth of all students should be ready to move on each semester. That is to say only 25% of the students are expected to graduate or finish their education in any semester. However, since according to the 1993 SIQ, 37% of noncredit students are working and only 18% state they are full-time students this time line must be expanded to be realistic. Holding to the ideal of two years, 8% of the students who actually enroll in credit within one year, represents an incredible 32% of the eligible 25% of noncredit students. However, since according to the 1993 SIQ, 37% of noncredit students are working and only 18% state they are full-time students this time line must be expanded to be realistic.

This study is also very conservative in its very nature because it is only examining the students who flow from noncredit to credit within one year. Most studies of this nature give a much longer period for the student to move. Therefore, the actual number of students from any given semester who actually enroll in credit is probably much larger over an extended period of time.

Table 12

Percent of Noncredit Enrolled Students Who Flow from Noncredit to Credit as a Percent of Enrolled Noncredit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	2.8	3.6	3.7	3.8	3.8	4	3.8	3.9	3.7	3.9	4	4.1	4.3	6.1	5.2	5.8	5.2	5.4	5.1	5.2	4.9
% Semester 2	3.2	4.1	4.1	4.2	4.1	4.4	4.3	4.2	4.5	4.3	4.4	4.6	6.3	6.3	6.1	5.8	5.8	5.6	5.5	5.3	n/a
% Total year	4.1	5.2	5.6	5.4	5.7	5.6	5.7	5.4	5.8	5.6	5.8	5.8	7.8	8	7.8	7.5	7.6	7.1	7.2	6.7	n/a

San Francisco High Schools, both public and private were the source of 1871, 1640 and 1056 first time freshmen for the fall terms of 1992, 1993 and 1994, respectively, according to the ICN 44-Census Week Report. There are several interesting issues regarding this sourcing. First, first time freshmen are defined as never having attended the credit program before. That is, even if they have attended the noncredit program prior to enrolling in the credit program, they are considered a first time freshman. Second, the year of graduation from that high school is irrelevant. For these two reasons a direct comparison between these figures for first time freshmen coming from San Francisco high schools and the figures in this

report for noncredit students cannot be directly compared. However, it terms of magnitude, in any given semester, a larger number of credit students attended the noncredit program the prior semester than came from any high school in San Francisco.

Again when examining the impact of noncredit students as a source of credit students it must be remembered that this study is very conservative in that it only allows students one year to get to credit after enrolling in a noncredit program. Second, when examining these figures, it must be remembered that City College is a two-year institution, and therefore only one-quarter of all students is the targeted figure for new students in any given semester. And as discussed before, two years is also probably a very conservative length of time for an urban student to complete their education, so 25% is probably an unrealistically high expectation.

It is again apparent that spring of 1991 represents a peak for the number of students moving from noncredit to credit both in absolute terms and as a percentage of the total number. It is also critical to the understanding of the pattern of student flow to remember that spring of 1991 was the semester that preceded the implementation of the course conversions, as well as the integration of both the credit and noncredit programs into discipline-based departments.

Table 13

Percent of Noncredit Enrolled Students Who Flow from Noncredit to Credit as a Percent of all Enrolled Credit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	5.5	8.8	7.5	7.7	7.8	7.9	7	6.9	6.9	7.3	6.9	7.1	7.2	9.9	7.5	7.6	6.5	7.4	7.1	6.9	5.9
% Semester 2	6.4	10	8.2	8.6	8.3	8.8	7.9	7.5	8.3	8	7.7	8.1	10.7	10.1	8.8	7.6	7.3	7.6	7.5	7.1	n/a
% Total year	8.3	12.6	11.2	11	11.7	11.1	10.6	9.6	10.8	10.3	10.2	10.1	13.1	12.9	11.3	9.8	9.5	9.7	10	9	n/a

Tables 14 and 15 show the absolute numbers as well as the percentage of noncredit students that enroll the next semester in noncredit programs. To understand these numbers, it must be pointed out that in the two-year college model, only 75% of the students are expected to continue. In addition, noncredit is specifically designed to meet the needs of adult students who may not be able to continue semester to semester without a break because of obligations in their lives, so that 75% is unrealistically high

Persistence between semesters has increased by 55% in the last ten years, or at an average rate of 5.5% per year.

Persistence into the second semester has remained relatively flat. A possible suggestion for the difference between these two trends is the very mobile nature of the noncredit population which is largely immigrant. A second possible reason is that as flow to credit increases, then, as a result, the persistence is noncredit will decrease. A third is that many noncredit students may have accomplished their education goals after just two semesters. Nevertheless, the significant differences between the patterns of persistence between "Semester 1" and "Semester 2" bears further investigation.

Table 14
Enrolled Students Flow from Noncredit to Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	17519	21342	25722	23163	26061	24052	26417	23848	27794	25398	28193	25713	28639	25919	26467	22588	24974	23102	23082	18902	17817
Semester 2	12889	17470	18134	18523	18574	19081	19417	19026	19875	20018	20217	20654	20789	19813	18453	18249	18668	16735	15605	12853	n/a
Total year	19398	24517	28477	26109	28507	26566	28858	26466	30150	28175	30711	28265	30900	28088	28643	24421	26799	24785	24546	19824	n/a

Table 15
Percent of Noncredit Enrolled Students Who Flow from Noncredit to Noncredit as a Percent of all Enrolled Noncredit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	36.2	43	52.1	43.9	50.9	46.2	53.1	47.6	54.2	47	53.8	48	55.8	49.8	52.7	49.6	59.5	54.2	56	47.9	50.6
% Semester 2	26.7	35.2	36.7	35.1	36.3	36.6	39	38	38.7	37.1	38.6	38.5	40.5	38.1	36.7	40	44.5	39.3	37.9	32.6	n/a
% Total year	40.1	49.4	57.7	49.4	55.6	51	58	52.9	58.8	52.2	58.6	52.8	60.2	54	57	53.6	63.9	58.2	59.6	50.2	n/a

Tables 16 and 17 present a summary of the flow of noncredit students over the following two semesters. Here the

peaking of persistence occurs in the fall 1992 semester. This indicates that the changes in conversion and restructuring have been quite effective, as the numbers under F'92 reflect the students' persistence into 1993, two years after the initial conversion period. A persistence rate of 64% is only 11% short of a perfect model of persistence, not a realistic measure for noncredit programs nor for urban colleges.

It is important to remember that data on these tables after fall of 1993 is not 100% complete since these numbers are affected in the case of fall 1993 by fall 1994 data which is incomplete and in the case of spring 1994 by fall 1994 and spring 1995, both of which are incomplete. Therefore, no conclusions should yet be drawn on changes in trends based solely on data from these two semesters.

Furthermore, these are enrollment numbers, not numbers of students who actually attended a class in the case of noncredit or completed a course in the case of credit. Therefore, given the very conservative nature of these definitions, the persistence rate between semesters for students from the noncredit program should be viewed as an outstanding success.

Table 16

Enrolled Students Flow from Noncredit to Noncredit or Credit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	18337	22893	26902	24534	27267	25523	27617	25139	29010	26798	29457	27178	29960	27995	28147	24267	26176	24379	24288	20288	18446
Semester 2	14031	19015	19609	20193	20132	20826	20702	20594	21554	21726	21908	22487	23071	22297	20690	20146	20235	18347	17289	14501	n/a
Total year	20381	25956	29796	27684	29913	28294	30272	27931	31612	29790	32128	29937	32506	30367	30513	26154	28120	26155	25863	21344	n/a

Table 17

Percent of Noncredit Enrolled Students Who Flow from Noncredit to Noncredit or Credit as a Percent of all Enrolled Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	25.8	33.4	37.2	31.9	36.4	33.2	36.8	32.8	37.4	32.9	36.5	32.9	37.4	34	34.1	30.8	35.8	33.9	35.1	30.2	30.2
% Semester 2	19.8	27.7	27.1	26.3	26.9	27.1	27.6	26.9	27.8	26.6	27.1	27.2	28.8	27	25.1	25.6	27.6	25.5	25	21.5	n/a
% Total year	28.7	37.8	41.2	36	39.9	36.8	40.3	36.4	40.8	36.5	39.8	36.3	40.6	36.8	36.9	33.2	38.4	36.3	37.4	31.7	n/a

FLOW OF ENROLLED CREDIT STUDENTS

Examination of the persistence rates between semesters from a credit to a credit program reflects the traditional fall to spring enrollment pattern, with persistence between fall and spring being about 10 percentage points higher than persistence between spring and fall. This reflects the fact that many more students finish their course of study in spring because 1) that is the way many programs are designed and 2) transfer to a four-year college or university is most frequent in the fall semester.

There has been a 23% increase in the last ten years in the persistence level between fall and spring semesters, or an average annual rate of 2.3%. Persistence rates for one year have improved 12% for the same period, half the rate the one semester rate. Fall 1993 are almost exactly on target at 72% with 75% the model.

Table 18
Enrolled Students Flow from Credit to Credit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	13483	13152	15788	13632	16070	14089	17152	14985	17802	15819	18890	16970	19881	18424	22636	20350	21833	19190	20636	18014	20245
Semester 2	10766	10788	10971	11008	11476	11566	12105	12301	12822	12874	13790	14015	14863	15172	16608	16075	16175	15519	15192	14879	n/a
Total year	14395	14264	16706	14796	17120	15329	18243	16360	19003	17214	20268	18485	21279	19906	23846	21595	22891	20179	21652	18974	n/a

Table 19
Percent of Credit Enrolled Students Who Flow from Credit to Credit as a Percent of Credit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	55.9	64.5	64.8	52.9	63.7	53.3	63.8	53.4	64.1	54.4	63	55.3	65.4	57.1	65.4	57.1	65.4	58.2	65.6	61.3	69
% Semester 2	44.6	52.9	45	42.7	45.5	43.8	45.1	43.8	46.2	44.2	46	45.7	48.9	47	46	46	48.6	49.6	50.8	50.1	n/a
% Total year	59.7	70	68.6	57.4	67.9	58	67.9	58.3	68.4	59.2	67.6	60.3	70.1	61.7	68.9	61.8	68.8	64.5	72.3	63.9	n/a

The flow of students in City College of San Francisco is not unidirectional. About 5% of all credit students enroll in noncredit courses after taking credit courses. This rate has remained relatively stable over time, decreasing at an average rate of about 1% per year for semester to semester flow from credit to noncredit. The flow from credit to noncredit during the entire next year has also declined, about 22% over this entire ten year period.

This may be the result of improved counseling so that students are placed in the correct program, noncredit or credit before they enroll. One of the goals of the integration of noncredit and credit into one department by discipline was to remove institutional barriers that previously often prevented students from getting accurate information about both credit and noncredit programs. This problem has been further corrected by the integration of all counseling into one department, so that information regarding program and course offerings is more equally available to counselors and students both.

Furthermore, reduction in the flow of students from credit to noncredit is due to the nature of the courses, specifically in the areas of allied health and automotive, converted to credit. These departments often attract credit students who have fulfilled their general education requirements. Since these are now credit programs, they are no longer part of the statistics showing movement from credit to noncredit.

Table 21
Enrolled Students Flow from Credit to Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	1420	1309	1405	1406	1404	1383	1298	1240	1383	1281	1471	1389	1455	1414	1553	1432	1699	1514	1546	1161	949
Semester 2	1235	1426	1286	1386	1302	1168	1117	1280	1182	1221	1294	1297	1200	1086	1323	1444	1418	1353	1110	813	n/a
Total year	2210	2183	2211	2266	2262	2036	2019	2024	2141	2025	2287	2151	2208	2045	2301	2219	2439	2195	2147	1534	n/a

Table 21
Percent of Credit Enrolled Students Who Flow from Credit to Noncredit as a Percent of Credit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	5.9	6.4	5.8	5.5	5.6	5.2	4.8	4.4	5	4.4	4.9	4.5	4.8	4.4	4.5	4.1	5.1	4.8	5.2	3.9	3.3
% Semester 2	5.1	7	5.3	5.4	5.2	4.4	4.2	4.6	4.3	4.2	4.3	4.2	4	3.4	3.8	4.1	4.3	4.3	3.7	2.7	n/a
% Total year	9.2	10.7	9.1	8.8	9	7.7	7.5	7.2	7.7	7	7.6	7	7.3	6.3	6.6	6.3	7.3	7	7.2	5.2	n/a

The actual percentage of of credit students flowing to noncredit has increased. This is because the size of the noncredit program has decreased faster than the drop in the number of students moving from credit to noncredit. This cohort now accounts for almost 5% of the total noncredit enrollment.

Table 22
Percent of Noncredit Enrolled Students Who Flow from Credit to Noncredit as a Percent of Noncredit Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	2.9	2.6	2.8	2.7	2.7	2.7	2.6	2.5	2.7	2.4	2.8	2.6	2.8	2.7	3.1	3.1	4.1	3.6	2.8	2.9	2.7
% Semester 2	2.6	2.9	2.6	2.6	2.5	2.2	2.2	2.6	2.3	2.3	2.5	2.4	2.3	2.1	2.6	3.2	3.4	3.2	2.7	2.1	n/a
% Total year	4.6	4.4	4.5	4.3	4.4	3.9	4.1	4	4.2	3.8	4.4	4	4.3	3.9	4.6	4.9	5.8	5.2	5.2	3.9	n/a

In conclusion, examining the pattern of credit student enrollment over the past ten years represents a period of improved service to students as evidenced by an overall increase in the level of persistence from semester to semester and for the entire year. Overall there has been an increase in the rate of persistence between semesters from 20% to 33% for the entire ten-year period. The rate for persistence for both the first and second semester has increased from 21% to 28%. Therefore, overall, the institution has been substantially more successful in improving persistence to the first semesters although less so for the second semester.

Table 23
Enrolled Students Flow from Credit to Credit or Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	14094	13773	16353	14317	16627	19737	17663	15529	18327	16410	19516	17593	20422	19017	23202	20901	22411	19718	21124	18407	20530
Semester 2	11457	11614	11690	11805	12200	12225	12676	13006	13478	13581	14504	14705	15446	15723	17248	16768	16860	16115	15704	15203	n/a
Total year	15162	15123	17414	15732	17862	16126	18872	17110	19663	17998	21029	19275	21896	20577	24503	22279	23583	20788	22196	19391	n/a

Table 24

Percent of Noncredit Enrolled Students Who Flow from Credit to Noncredit or Credit as a Percent of all Enrolled Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
% Semester 1	19.9	20.1	22.6	18.6	22.2	25.7	23.5	20.3	23.6	20.1	24.2	21.3	25.5	23.1	28.1	26.6	30.6	27.4	30.5	27.3	32.8
% Semester 2	16.1	16.9	16.2	15.3	16.3	15.9	16.9	17	17.4	16.7	18	17.8	19.3	19.1	20.9	21.3	23	22.4	22.7	22.6	
% Total year	21.4	22	24.1	20.5	23.8	21	25.2	22.3	25.4	22.1	26.1	23.4	27.4	25	29.7	28.3	32.2	28.9	32.1	28.8	

FLOW OF NONCREDIT AND CREDIT ENROLLED STUDENTS

This section examines the enrollment pattern of all students, both credit and noncredit students going to both credit and noncredit programs. Persistence to the next semester peaked for the fall 1992 cohort of students; 64% persisted to the next semester and 68% persisted for the entire year, falling only 7% points short of the ideal.

The ten year improvement rate for first semester persistence is 17% or 1.7% average annual rate of increase. For first and second semester persistence the improvement is slightly less, 13% or an average annual rate of increase of 1.3%.

Table 25

Enrolled Students Flow from Credit and Noncredit to Credit and Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	38311	35576	42100	37747	42726	39126	44066	39646	46124	42152	47658	43556	49027	45674	49561	43775	46999	42678	43849	34431	38299
Semester 2	29150	29671	30392	31014	31433	32086	32457	32682	34059	34361	35349	36143	37433	36890	36492	35733	35836	33369	31802	28677	n/a
Total year	41994	39883	46002	42181	46532	43192	47860	43911	49979	46604	51757	47898	52971	49517	53146	46962	50039	45461	46435	39408	n/a

Table 26
Percent of Noncredit and Credit Enrolled Students Who Flow from
Credit and Noncredit to Credit and Noncredit as a Percent of all Enrolled Students

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	54	51.9	58.3	49.1	57	50.9	58.7	51.7	59.5	51.7	59.1	52.8	61.3	55.4	60	55.6	64.2	59.3	63.4	51.1	61.1
Semester 2	41.1	43.3	42.1	40.3	42	41.8	43.3	42.6	43.9	42.1	43.8	43.8	46.8	44.8	44.2	45.4	49	46.4	46	42.6	n/a
Total year	59.2	58.1	63.7	54.8	62.1	56.2	63.8	57.3	64.4	57.2	64.1	58	66.2	60.1	64.3	59.7	68.4	63.2	67.1	58.5	n/a

FLOW OF NONCREDIT STUDENT ATTENDERS

The following sections all discuss the attendance pattern of students rather than students' enrollment patterns.

The percentage of credit students who attended a noncredit course the prior semester increased from 6.5% to 7.3% over the last ten years, a 12% increase or a little more than a 1% increase per year. The percent of credit students who have attended a noncredit course in the previous year slightly decreased form 9.8% to 9.3%.

The peak was once again in spring of 1992 with 10% of credit students having attended a noncredit class in the last year. Unfortunately this is lower than the 12.9% rate for those who enrolled. Therefore, a higher percentage of students from noncredit state their intention of enrolling in credit as compared to those that actually finish the class. The cause of the failure to complete the class should be explored because intervention could possibly help to remove the differential between intend and performance.

Table 27
Student Attenders Flow from Noncredit to Credit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	1311	1389	1363	1515	1562	1629	1429	1481	1421	1633	1586	1643	1667	2470	1901	2110	1683	1808	1539	1568	1491
Semester 2	1445	1601	1538	1726	1608	1805	1645	1652	1792	1819	1807	1923	2524	2893	2365	2173	1904	1930	1672	1848	n/a
Total year	2014	2035	2131	2255	2378	2364	2253	2153	2343	2414	2456	2459	3161	3368	3060	2852	2556	2457	2273	2224	n/a

The level of first semester persistence for noncredit students attending noncredit courses the next semester increased from 51% to 58% in the last ten years, a 13% increase. The level of persistence for noncredit students attending noncredit courses in the next year also increased, from 56% to 61%, nearly a 10 % improvement.

The persistence of attenders from noncredit is substantially higher than for enrollers. This indicates that once a noncredit student actually attends a course, they are more likely to attend, not just enroll the next semester. Ten years ago while 36% of the enrollers enrolled the next semester, 51% of the attenders actually attended the course. Today that difference is 56% to 58%.

Ten years ago 91% of the noncredit students who enrolled, attended their course, today that level is 97%. Therefore, we have not only improved the level of persistence of noncredit students, but the rate at which students attend a course after they have enrolled.

Table 28

Student Attenders Flow from Noncredit to Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	22310	19549	23447	21283	24650	21644	23998	21252	25132	22084	25227	22367	25380	21519	22403	20579	22465	19865	21593	18256	4465
Semester 2	15515	16173	16454	17324	16990	17689	17142	17501	17432	17972	17736	18313	17319	16699	16123	16268	16128	15870	14825	3351	n/a
Total year	24573	22334	25973	24107	27009	24373	26292	23984	27523	24985	27778	25183	27699	24093	24413	22545	24317	21744	22954	18377	n/a

First semester persistence of noncredit students in the institution has remained relatively constant over the last ten years accounting for 37% of the total college attenders today and ten years ago. The same holds true for first and second semester persistence of noncredit students in the institution, holding steady at 40% over the last decade.

These statistics hide the many changes that have occurred in the institution regarding persistence of noncredit students over time. The reason is that there has been movement in both directions and these movements have offset each other, making it appear that there has been no change.

Table 29
Student Attenders Flow from Noncredit to Credit and Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	23178	20590	24373	22378	25660	22844	24852	22298	26093	23252	26226	23528	26441	23299	23646	21981	23446	21087	22496	19367	5823
Semester 2	16657	17349	17641	18661	18229	19092	18421	18794	18799	19364	19121	19797	19220	18718	17920	17878	17526	17315	16122	5102	n/a
Total year	25617	23569	27052	25393	28190	25806	27447	25206	28684	26346	28949	26549	29007	26088	25867	24038	25418	23068	23969	19750	n/a

FLOW OF CREDIT STUDENT ATTENDERS

Over the last decade the level of first semester persistence by credit student attenders to credit programs has risen from 62% to 66%, an increase of 6.5%. During this same time period, the level of first and second semester persistence for these students has risen from 67% to 72%, an increase of 7.5%.

This is a very successful level, only 3% below the ideal level of 75%. This is also substantially higher than the comparable persistence rates. The level of first semester persistence by credit student enrollers changed from 56% to 61% over the last decade, an increase of 9%. The level of first and second semester credit student enrollers changed from 60% to 64%, an increase of 7%.

Table 30
Student Attenders Flow from Credit to Credit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	12706	10603	12863	11023	13141	11113	13441	11550	13480	11875	14507	12891	15357	14122	17566	15730	17183	14807	16529	14056	17256
Semester 2	8815	8649	8977	8885	9169	9112	9421	9194	9765	9653	10598	10709	11488	11695	12922	12460	12680	12213	11876	12669	n/a
Total year	13741	11780	13948	12270	14332	12454	14626	12937	14894	13316	16000	14511	16890	15768	19133	17218	18620	16143	17801	15661	n/a

As with the credit student enrollers the level of student flow from credit to noncredit has declined for credit student attenders. There has been a 10% drop in the rate at which credit students attend noncredit programs within one semester after completing a credit course in the last decade. In 1984 5.1% of the credit student attenders took a noncredit course the next semester. That level has been reduced for the reasons discussed above to 4.6%.

The same pattern holds for credit student attenders taking a noncredit course one or two semesters later. Ten years ago the level was 8% and now it is 6.5%, a substantial decline of 19%. It is not clear if all of this drop can be explained by the conversion of many vocational programs to credit or whether some other factor has entered into the decision making process of credit attenders.

Table 31
Student Attenders Flow from Credit to Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	1043	948	996	1071	1109	1101	1002	900	1001	939	1032	1003	1076	997	1137	1058	1293	1032	1150	890	148
Semester 2	907	1034	1016	1096	1035	931	860	944	884	890	981	971	870	790	981	1081	1007	1026	823	140	n/a
Total year	1651	1584	1678	1771	1808	1640	1553	1489	1595	1482	1679	1601	1643	1485	1718	1672	1867	1575	1625	933	n/a

Unlike the noncredit attenders where the flow of all noncredit throughout the institution hid the more subtle patterns, the level of change among the credit attenders is not hidden by the summary Table 32. The level of first semester persisters among credit student attenders in both the credit and noncredit programs increased in the last decade from 59% to 68%, a change of 15%. For first and second semester persisters the level changed from 70% to 73%, a change of 5% in the last decade.

Table 32
Student Attenders Flow from Credit to Credit and Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	13160	11109	13926	11589	13641	11708	13910	11991	13918	12357	15012	13405	15831	14590	18034	16196	17708	15256	16932	14443	17298
Semester 2	9357	9296	9584	9557	9787	9701	9920	9775	10294	10230	11189	11272	11955	12120	13439	13045	13229	12720	12300	12736	n/a
Total year	14308	12459	14517	13039	14959	13169	15188	13546	15438	13971	16614	15156	17424	16288	19660	17789	19219	16666	18244	15969	n/a

FLOW OF CREDIT AND NONCREDIT ATTENDERS

The rate of persistence throughout the institution improved over the last decade for both first semester and first semester and second semester student attenders. Both groups improved by 9%, with first-semesters attenders increasing their persistence from 56% to 63% and first and second semester attenders increasing from 62% to 67%.

Table 33
Student Attenders Flow from Credit and Noncredit to Credit and Noncredit

	F'84	S'85	F'85	S'86	F'86	S'87	F'87	S'88	F'88	S'89	F'89	S'90	F'90	S'91	F'91	S'92	F'92	S'93	F'93	S'94	F'94
Semester 1	35548	30981	36940	33226	38463	33754	37919	33601	39231	34931	40355	36139	41344	36998	40524	37204	40033	35366	38430	32914	22347
Semester 2	25416	26104	26636	27561	27403	28094	27703	27939	28448	28979	29597	30352	30454	30078	30422	30082	29888	29184	27689	17146	n/a
Total year	39066	35236	40778	37599	42238	38077	41731	37981	43261	39544	44599	40813	45431	41397	40770	40770	43442	38675	41162	34767	n/a

MAJOR FINDINGS

Of the 123,000 who enrolled in at least one course at City College of San Francisco during the last five years, 23%, or nearly one-quarter, attended a non-credit program. Eighty-eight hundred came from ESL non-credit programs, making up 50% of the credit ESL program. Twenty-one percent, 4800, of all noncredit basic skills enrolled in credit courses during this same period, as did 17,000 or 24% of those who attended non-credit vocational programs.

There was a 54% increase in the number of students moving from non-credit to credit annually during the ten years of the study. This is despite a 22% decrease in the number of non-credit students being served. In addition, between 66% to 73% of these students persist in credit during the next semester.

The flow of students at CCSF is not unidirectional. In recent years, about 7% of all credit students enroll in noncredit courses within 2 semesters. However, this is down from 10% ten years ago. The main reason for this decline is the conversion of many vocational programs from non-credit to credit.

Furthermore, in the last 10 years the number of students taking advantage of both non-credit and credit programmatic offerings simultaneously has increased 20%, from 1500 to 1800.

CONCLUSION

This report has discussed in detail the flow of students throughout City College of San Francisco for the last decade. Students have been examined both as enrollers and as attenders. The pattern of the enrollment of all students has been compared to the pattern of attendance of all students. Furthermore, students have been analyzed by programmatic enrollment and attendance. Student flow patterns from noncredit programs into credit, noncredit and to both noncredit and credit programs have been compared to the patterns of students flowing from credit to noncredit, credit and credit to both credit and noncredit. Finally, the pattern of all students either enrolling or attending City College noncredit and credit programs simultaneously has been studied.

The result is an extremely positive report that supports the change to a departmental based structure that integrates credit and noncredit programs, as well as, the conversion of courses from noncredit to credit. Persistence levels have been improved almost across the board. Participation in credit programs by noncredit students has risen, while participation of credit students in noncredit has decreased. Simultaneous participation in both credit and noncredit programs has also increased. All of these trends indicate that barriers to student enrollment and attendance in programs at City College of San

Francisco have been reduced and that student needs are being better met.

Nevertheless, areas of concern have surfaced. The ratio between the number of students who actually attend and complete a course in credit to the number who enroll has actually declined in the last ten years. This is worthy of further study to explain the causes of this decline.

Decline in enrollment also bears watching. Most of this decline is due to planned course conversion and reduction in instructional course offerings. However, to reach cap this year, a 4% growth will be necessary, and, therefore, close scrutiny of enrollment and attendance is in order.

The institution improved its rates for inter-semester persistence dramatically in the last decade. However, the rates for persistence past that first semester did not experience a similar improvement. It is necessary to discover why the rates improved for one and not the other, so that intervention methods can be developed to keep students for their third semester, if warranted.

And finally, the drop in the rate of movement from credit to noncredit needs to be explored at the department level to make sure that the drop is a function of course conversion and not some other hidden factor.

Overall, the integration of credit and noncredit into departments and the conversion of many noncredit courses to credit has been of benefit to both the institution and the students.